

## CLAIMS

*Sum*  
*AI*

1. A method for enabling a program written in  
untrusted code to access a native operating system  
resource, comprising the steps of:  
listening for requests for login credentials;  
responsive to a login request, making a request for  
a native operating system identifier;  
sending the native operating system identifier to  
the program;  
using the native operating system identifier to  
create a credential object; and  
using the credential object to login to the native  
operating system to enable the program to access the  
resource.

2. The method as described in Claim 1 wherein the  
program is a Java program and the native operating system  
is Windows NT.

3. The method as described in Claim 1 wherein the  
listening step is performed by a login service.

4. The method as described in Claim 3 wherein the  
login service listens for requests on a named pipe.

5. The method as described in Claim 3 wherein the login service listens for requests issued via remote procedure calls.

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a 6. The method as described in Claim 3 wherein the request is issued by the login service.

7. The method as described in Claim 1 wherein the native operating system identifier is send by a response pipe.

8. The method as described in Claim 1 wherein the credential object is created in an authentication framework.

9. The method as described in Claim 8 wherein the authentication framework is a pluggable authentication mechanism (PAM).

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10. The method as described in Claim 8 wherein the authentication framework is compliant with a Java Authentication and Authorization Service.

11. A method for enabling a program written in  
untrusted code to access a native operating system  
5 resource, comprising the steps of:

a! having a trusted login service listen on a named  
pipe for requests for login credentials;

responsive to a login request, having the trusted  
login service request a native operating system  
10 identifier;

returning to the program via a response pipe the  
native operating system identifier;

in an authentication framework, using the native  
operating system identifier to create a credential  
15 object; and

using the credential object to login to the native  
operating system to enable the program to access the  
resource.

20 12. The method as described in Claim 11 wherein the  
native operating system is Windows NT.

13. The method as described in Claim 12 wherein the  
program is written in a language selected from Java,  
25 ActiveX, and Visual Basic.

14. The method as described in Claim 11 wherein the authentication framework is a pluggable authentication mechanism (PAM) having a set of application programming  
5 interfaces (APIs).

a 15. The method as described in Claim 14 wherein the set of application programming interfaces include login, commit, abort and logout APIs.

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16. The method as described in Claim 14 wherein the authentication framework is compliant with a Java Authentication Service.

17. A computer program product in a computer readable medium for enabling a program written in untrusted code to access a native operating system resource, comprising the steps of:

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means for listening for requests for login credentials;

means responsive to a login request for making a request for a native operating system identifier;

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means for sending the native operating system identifier to the program;

means for using the native operating system identifier to create a credential object; and

means for using the credential object to login to the native operating system to enable the program to access the resource.

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18. The computer program product as described in Claim 17 wherein the program is a Java program and the native operating system is Windows NT.

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19. The computer program product as described in Claim 17 wherein the means for listening step is a login service.

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20. The computer program product as described in Claim 17 wherein the credential object is created in an authentication framework.

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21. An application server, comprising:

a set of Java programs;

a processor running a native operating system

5 providing support for executing the set of Java programs;

and

a1 means for enabling each Java program to run in an  
operating system thread as a different native operating  
system user.

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22. The application server as described in Claim 21  
wherein the native operating system is Windows NT.

23. The application server as described in Claim 21  
15 further including a server application executed by the  
processor for receiving a request for service from a  
client machine and initiating execution of one of the  
Java programs in a given operating system thread.

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